REMARKS

The Examiner is thanked for the careful examination of the application. However, in view of the remarks that follow, the Examiner is respectfully requested to reconsider and withdraw the outstanding rejections. The independent claims have now been amended to remove a previously added feature.

Art Rejections:

Claims 1, 2, 6 - 8, 12, and 22 - 24 have been rejected under 35 U.S.C. §102(e) as being allegedly anticipated by U.S. Patent No. 6,766,056, hereinafter *Huang*.

One of the objects of the present invention is to provide an *efficient* method for determining whether or not an image has a specified pattern. In one embodiment, the present invention achieves these goals by selecting certain pixels and binarizing the target pixel into one of two data values. As can be seen in Figures 5 and 6, a target pixel and pixels specifying conditions are illustrated. Only the target pixel and other related pixels satisfying certain conditions are used as the basis for the color data when binarizing the target pixel into one of two data values.

In order to minimize the number of related pixels selected, the present invention includes a storage unit for storing a first condition that defines absolute positions of pixels in the image and a second condition on positions of pixels relative to a target pixel. The claims have now been amended to further define a selector for selecting a target pixel included in the image data and also selecting at least one related pixel which satisfies the stored first condition and the stored second condition

relative to the selected target pixel. A purpose of the amendment is to clarify that the first and second conditions are related to the same related pixels.

In response to the comments from the Examiner, the description of *Huang* is modified slightly. In *Huang,* eight bit image data 21 is fed into the pixel buffer pipe 42 as illustrated in Fig.4. At that time, the image data 21 has not yet been subsampled, i.e., it is not subsampled prior to entry into the pixel buffer pipe 42. Note that the Examiner indicates on page 2 of the Official Action that it "is undisputed that the pixel buffer pipe 42 subsamples the input image data 21..." Thus, the term "input image data 21" in *Huang* is used to describe image data as it is input to the system and which has not yet been processed.

The input image data 21 is then sub-sampled in the pixel buffer pipe 42 in accordance with instructions from the sub-sample control 41. Since the sub-sample control 41 determines the sub-sampling instructions, and data from the sub-sample control 41 is input to the pixel buffer pipe 42, it would not be possible for the input image data 21 to be sub-sampled prior to entering the pixel buffer pipe 42.

The Examiner then indicates that the threshold determining unit operates on the subsampled image data. There is an arrow from the pixel buffer pipe 42 to the threshold determining unit 45. However, there is no description as to whether the data input to the threshold determining unit 45 from the pixel buffer pipe 42 is sub-sampled or not. Note that if the sub-sampling occurs in the pixel buffer pipe 42, then the pixel buffer pipe 42 will contain both original image data as well as sub-sampled image data.

The Examiner alleges that the second condition is met by using the lag pixels 4 – 7 to determine the threshold in the threshold determining unit 45. The Examiner

further alleges at the top of page 4 that the threshold determining unit 45 uses the sub-sampled data to determine the threshold, i.e., that the lag pixels 4 – 7 are from the sub-sampled image data. Applicant disagrees with that assumption.

At column 6, lines 55 – 58, with regard to the determination of the threshold of the foreground, *Huang* teaches "Turning to FIG. 5 there is shown a representation of a plurality of consecutive pixels 55, of a **current** scanline of the input image data 21, temporarily stored in the pixel buffer pipe 42." If it is referred to as a scanline, it must be the line of data that was scanned, not a sub-sampling of it. Thus, it is clear that at least the determination of the threshold of the foreground shown in FIG. 5 is performed on the as-received input image data 21 (56) inputted to the pixel buffer pipe 42. Accordingly, the determination of the threshold of the foreground shown in FIG. 5 is NOT performed on the subsampled image data. It is performed on the input image data 21. Thus, the pixel of interest (0) and the "lag" pixels (4 – 7) for generating the foreground threshold to be compared with the pixel of interest are obtained as "a plurality of consecutive pixels 55 of a current scanline", i.e., the original input image data. Furthermore, column 6, lines 55 – 68, refers to the pixels 55 (illustrated in Fig. 5) as **input** image data. And, it states that the pixels enter 56 the pixel buffer pipe 42. Since the pixels are sub-sampled in the pixel buffer pipe 42, the pixels 55 entering the pixel buffer pipe 42 cannot have already been sub-sampled. Thus, the lag pixels 4 – 7 illustrated in Fig. 5, are from the original image data before it is sub-sampled.

Since the lag pixels 4 – 7, which are sent to the threshold determining unit 45 are selected before the sub-sampling (which the Examiner alleges corresponds to the claimed "first condition"), such lag pixels cannot meet both the first and second

conditions. There is no way of determining whether or not the lag pixels will be culled in the sub-sampling step. Since the lag pixels do not meet both the first and second conditions, *Huang* does not teach claim 1 as now amended, which now requires a selector for selecting a target pixel included in the image data and also selecting *at least one related pixel which satisfies the stored first condition and the stored second condition* relative to the selected target pixel.

Accordingly, claim 1 is now patentable over *Huang*. Claims 2, 6, 7, 8, 12, and 22 – 24 are patentable at least for the same reasons.

With regard to claims 3, 4, 9 and 10, *Bloomberg* and *Kanno* do not overcome the deficiencies set forth above with respect to *Huang*.

Accordingly, Applicant respectfully requests the Examiner to reconsider and withdraw the rejections of claims 1 – 3, 5 – 9, 11, 12 and 22-24 in view of the foregoing amendments and remarks.

In the event that there are any questions concerning this response, or the application in general, the Examiner is respectfully urged to telephone the undersigned attorney so that prosecution of the application may be expedited.

Respectfully submitted,

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